

REMARKS:

Remarks to the Specification:

The amendments to the specification are to correct spelling errors that are obvious to one of ordinary skill in the art. No new matter is added.

In the paragraph at page 8, line 16 – page 9, line 3 the word “then” at line 27 in the phrase “less then” is replaced with the word than to make the proper comparative phrase “less than”. One of ordinary skill in the art would recognize “then” is an obvious misspelling of the word “than” because of the many occurrences of the phrase “less than” in the context of the comparison throughout the specification. (See e.g. page 6, line 24, “X is less than”)

In the paragraph appearing at page 13, lines 18 - 29 the word “as” at line 22 is replaced with the word “at”. One of ordinary skill in the art would know that “as” is an obvious misspelling of “at” because the phrase “as wavelength i” makes no grammatical sense. Support for the absorbance being “at wavelength i” is found throughout the specification. (See e.g. page 6, line 27, “Ai is the percent of light absorbed at wavelength i.”, page 8, line 29, page 12, line 14).

In the paragraph appearing at page 16, lines 15 – 34, the word “employed” at line 24 is replaced with the proper spelling of the word “employed”. One of ordinary skill would know that employed is a misspelling of the word employed because there is no word as employed.

In the paragraph appearing at page 24, lines 4 - 16, the word “isophthlamide” at line 14 is replaced with the proper spelling “isophthalamide”. One of ordinary skill would know that this is a misspelling because there is no chemical entity known as isophthlamide and proper spelling isophthalamide occurs throughout the same paragraph.

In the paragraph appearing at page 27, line 22 – page 28, line 11, the misspelled name Mitsuibishi at line 25 is replaced with the proper name Mitsubishi. One of ordinary skill in the art would recognize this misspelling because it is well known that Mitsubishi Gas Chemical is one of the few suppliers of MXD-6 nylon and one of ordinary skill in the art can refer to the cited reference for the correct spelling.

In the paragraph appearing at page 29, line 16 – page 30, line 4, the reversed units of “mn” at line 28 are corrected to properly indicate nm (nanometer). That one of ordinary skill in the art would recognize this as an error for nm is demonstrated by the use of the well known abbreviation for nanometer immediately preceding the notation 600 “mn”.

In the paragraph appearing at page 32, lines 9 – 18 the misspelled word “Renold” at line 15 is replaced with the proper spelling Renol. One of ordinary skill in the art would recognize this as a misspelling because the word Renol is used to identify the red throughout the specification. (See e.g. page 32, line 15; Page 32: column 1 of Table I, Page 33, line 9.)

In the paragraph appearing at page 34, line 29 – page 35, line 3, the misspelled word “perpindicular” at line 30 is replaced with the proper spelling “perpendicular”. One of ordinary skill in the art would recognize this obvious spelling error because there is no word “perpindicular”.

In Table III at page 39, lines 23 – 28, the misspelled trade name “Tensar” at line 25 is replaced with the proper trade name Tersar. One of ordinary skill in the art would know that Tersar is a misspelling because the proper name Tersar is used elsewhere and is the known trade name for colorants from Clariant Corporation (page 30, lines 3, 24, page 33, line 16, Fig 12, Figs 8B, 8C, 9B, 9C).

In the paragraph appearing at page 39, line 29 – page 40, line 15, the misspelled Clariant trade name “Tensar” at lines 2 and 3 is replaced with the proper spelling “Tersar”. One of ordinary skill in the art would know that Tersar is a misspelling because the proper name Tersar is used elsewhere and is the known trade name for colorants from Clariant Corporation (page 30, lines 3, 24, page 33, line 16, Fig 12, Figs 8B, 8C, 9B, 9C).

Remarks to the Claims:

The preceding amendments have been constructed to create two independent claims. Claims 27 – 63 and new dependent claims 98 - 130 are to a colored transparent article of a single layer construction where X, the total amount of relative light available for reflectance is less than 9.6.

Claims 81 – 97 are to a colored transparent article of a multi-layer construction where X, the total amount of relative light available for reflectance, is less than 9.6.

New claim 131 depends from claim 27 and is to a colored transparent article of a single layer construction where X, the total amount of relative light available for reflectance, is less than 7.5. Dependent claims 131 to 176 mirror the dependent claims of 26 – 63 and 98 – 130. Claims 177 to 185 depend from claim 131 and are to specific colors and fillers, all supported in the specification

Claims 1 – 17, 52-57, and 64-80 have been canceled. This removes independent claim 1 and independent claim 64 and their respective dependent claims from this prosecution and overcomes issues to claim 1 raised during the Examiners Interview held on March 22, 2006. (Claims 18 – 26 were previously canceled).

Claim 27 has been amended to

1. Specify that the transparent article be a colored container as suggested by the Examiners. Support can be found at page 19, line 20; “the transparent article may be colored”.
2. Specify the amount of the light absorbing composition or compositions as suggested by the Examiners. Support for this can be found at page 6, lines 3 – 4.

“One manner of altering the light absorption of the article is to employ an effective amount of one or more light absorbing compositions...”

3. Clarify that it is the article which absorbs the light, in this case, a colored transparent article. Support for the article being the object absorbing the light is found at page 6, lines 3-4.

“One manner of altering the light absorption of the article is to employ an effective amount of one or more light absorbing compositions...”

Additional support can be found at page 10, line 32, “altering the light adsorption of the article”

4. Specify that the light absorbed is by a single continuous portion of the article without the incompatible filler. Support for this can be found at page 12, lines 21 – 24;

“The light absorbent composition must be capable of absorbing light in the visible spectrum of that single, continuous portion of the article such that, when absorbance is determined on that single, continuous portion of the article without an incompatible filler present, X is less than 9.6 ...”

Support is also found at page 13, lines 20 – 22,

“Ai is the percent of light absorbed by the article having the colorant without the incompatible filler...”

5. Specify that Ai is the light absorbed is by a single continuous portion of the article without the incompatible filler. Support for this can be found at page 12, lines 11-17 and lines 21 – 24;

“The light absorbent composition must be capable of absorbing light in the visible spectrum of that single, continuous portion of the article such that, when absorbance is determined on that single, continuous portion of the article without an incompatible filler present, X is less than 9.6 ...”

6. Provide for the correct antecedent basis for the wavelength i. Support that the wavelength i for Ai and Ni are the same is found throughout the specification, but particularly at page 38, lines 12 and 13 where the formula is described in written format.

“the percent of the incident light reflected (i.e. not absorbed) [1-Ai] at a wavelength times the number of domains per unit square area (i.e. square microns) at the wavelength.”

7. Specify that X is the total amount of relative light available for reflectance.
Support is found at page 13, lines 10 – 12.
..., the total amount of relative light available for reflectance (i.e. that is not absorbed across the entire visible spectrum, from about 400 nm an about 700 nm, must be less than 9.6.
8. Clarify that i is the wavelength i from 400 nm to 700nm. Support is found at page 38, line 16 19, ending with “at wavelength i, and i ranges from 400 nm to 700 nm, (i.e. the visible spectrum).
9. Limit transparent article to a colored transparent article
10. Correct the proper antecedent for “single layer construction”.

The insertion of the definition of X directly into the claims at the suggestion of the Examiners in the Interview and the comments in the Applicant’s February 25, 2006 response are believed to overcome the 112 objection in the office action regarding the term X. X is now specifically defined in the claim.

Limiting the article to colored articles was also suggested by the Examiners and independently overcomes the obviousness rejections in view of Kim et al. As discussed in the Examiners Interview and outlined in the Applicant’s February 25, 2006 response, Kim et al teaches that the container be colorless, and in fact the working example of Kim eliminated the green color and green is noted to work in the instant invention. (See Kim at para 38 and 29)

The remaining claims have been amended as follows.

Claims 28 – 29 have been amended to

1. limit the claim to a “colored transparent article”. Support can be found at page 19, line 20; “the transparent article may be colored”.
2. specify that the single continuous portion of the colored transparent article is a sidewall of the oriented container (claim 28) or bottle (claim 29), Support is found at page 12, line 21. “such as the sidewall of a container or bottle.”

Claims 30 – 40 have been amended to reflect that the article is colored as specified in

independent claim 27.

Claim 41 has been canceled. Please note that the value of 7.5 for X has been reflected in new dependent claims 131.

Claims 42 – 51 were canceled previously.

Claims 52 – 57 have been canceled as they depend upon claim 1 which was canceled.

Claims 58 – 59 have been amended to a “colored transparent article”. Support can be found at page 19, line 20; “the transparent article may be colored”.

Claim 59 has been amended to depend from claim 31.

Claims 60 has been amended to a “colored transparent article”. Support can be found at page 19, line 20; “the transparent article may be colored”.

Claim 60 and 61 have been amended to depend from claim 31.

Claims 61 – 63 have been amended to a “colored transparent article”. Support can be found at page 19, line 20; “the transparent article may be colored”.

Claims 62 – 63 have been amended to depend from claim 32.

Claims 64 – 80 have been canceled.

Claim 81 has been amended to mirror claim 27 except for the limitation that the article be of multi-layer construction. The amendments are

1. Specify that the transparent article be a colored container as suggested by the Examiners. Support can be found at page 19, line 20; "the transparent article may be colored".
2. Specify the amount of the light absorbing composition or compositions as suggested by the Examiners. Support for this can be found at page 6, lines 3 – 4.

"One manner of altering the light absorption of the article is to employ an effective amount of one or more light absorbing compositions..."

3. Clarify that it is the article which absorbs the light, in this case, a colored transparent article. Support for the article being the object absorbing the light is found at page 6, lines 3-4.

"One manner of altering the light absorption of the article is to employ an effective amount of one or more light absorbing compositions..."

Additional support can be found at page 10, line 32, "altering the light adsorption of the article"

4. Specify that the light absorbed is by a single continuous portion of the article without the incompatible filler. Support for this can be found at page 12, lines 21 – 24;

"The light absorbent composition must be capable of absorbing light in the visible spectrum of that single, continuous portion of the article such that, when absorbance is determined on that single, continuous portion of the article without an incompatible filler present, X is less than 9.6 ..."

Support is also found at page 13, lines 20 – 22,

"Ai is the percent of light absorbed by the article having the colorant without the incompatible filler..."

5. Specify that A_i is the light absorbed is by a single continuous portion of the article without the incompatible filler. Support for this can be found at page 12, lines 11-17 and lines 21 – 24;
 “The light absorbent composition must be capable of absorbing light in the visible spectrum of that single, continuous portion of the article such that, when absorbance is determined on that single, continuous portion of the article without an incompatible filler present, X is less than 9.6 ...”
6. Provide for the correct antecedent basis for the wavelength i . Support that the wavelength i for A_i and N_i are the same is found throughout the specification, but particularly at page 38, lines 12 and 13 where the formula is described in written format.
 “the percent of the incident light reflected (i.e. not absorbed) $[1 - A_i]$ at a wavelength times the number of domains per unit square area (i.e. square microns) at the wavelength.”
7. Specify that X is the total amount of relative light available for reflectance.
 Support is found at page 13, lines 10 – 12.
 ..., the total amount of relative light available for reflectance (i.e. that is not absorbed across the entire visible spectrum, from about 400 nm an about 700 nm, must be less than 9.6.
8. Clarify that i is the wavelength i from 400 nm to 700nm. Support is found at page 38, line 16 19, ending with “at wavelength i , and i ranges from 400 nm to 700 nm, (i.e. the visible spectrum).
9. Limit transparent article to a colored transparent article
10. Correct the proper antecedent for “multi-layer construction”.

Claims 82 – 83 have been amended to

1. limit the claim to a “colored transparent article”. Support can be found at page 19, line 20; “the transparent article may be colored”.
2. specify that the single continuous portion of the colored transparent article is a sidewall of the oriented container (claim 28) or bottle (claim 29), Support is found at page 12, line 21; “such as the sidewall of a container or bottle.”

Claims 84 – 97 have been amended to a “colored transparent article”. Support can be found at page 19, line 20; “the transparent article may be colored”.

Claim 98 is a new claim depending from currently amended claim 27 and adds the limitation that at least one of the light absorbing compositions be a red colorant. Support that at least one of the light absorbing compositions be a red colorant can be found at page 28, line 22 “the complementary color which absorbs light in this same region is red”, page 29, line 8, noting that the red color seems to be the best to cover the haze, and page 32, line 10 and 15, noting Renol Red-4 colorant as being added to the article.

Claims 99 – 108 are new and mirror the previous dependent claims. Support for these claims can be found in the following table.

Claim 109 is a new claim depending from currently amended claim 27 and adds the limitation that at least one of the light absorbing compositions be a yellow colorant. Support that at least one of the light absorbing compositions be a yellow colorant can be found at page 29, lines 23 – 29, noting the effectiveness of a yellow colorant to visually mask the haze.

Claims 110 – 119 are new and mirror the previous dependent claims. Support for these claims can be found in the following table.

Claim 120 is a new claim depending from currently new claim 98 and adds the limitation that at least one of the light absorbing compositions be a yellow colorant. Support that at least one of the light absorbing compositions be a yellow colorant can be found at page 29, lines 23 – 29, noting the effectiveness of a yellow colorant to visually mask the haze. Support for more than one light absorbing composition can be found at page 6, lines 3-4. (an effective amount of one or more light absorbing compositions).

Claims 121 – 130 are new and mirror the previous dependent claims. Support for these claims can be found in the following table.

Claim 131 is a new claim depending from claim 27 wherein X is less than 7.5. Support for X being less than 7.5 can be found at p13, lines 10-11, "X less than 7.5 is even more preferred".

Claims 131 – 176 mirror the other claims depending from claim 27. Their support is noted in the following table.

Claims 177 – 179 are to the article wherein the light absorbing composition comprises a red, blue and yellow colorant.

Support for the composition comprising different light absorbing compositions is found at page 6, lines 3 – 4.

"One manner of altering the light absorption of the article is to employ an effective amount of one or more light absorbing compositions..."

Support for the light absorbing compositions being red, blue and yellow are found throughout the specification. (See e.g. page 29, lines 23-29 for yellow, page 28, line 22 for red, and page 40, line 3 for Tersar blue at 0.1%.)

Claim 178 depends from claim 177 and specifies that the incompatible filler not be a polyester or clay. Support is found in original claim 7, using the same verbiage.

Claim 179 depends from claim 178 and specifies that the incompatible filler be a polyamide. Support for that can be found at original claim 33, and page 23, line 30.

Claims 180 – 182 are to the article wherein the light absorbing composition absorbs light between 450 and 600 nm.

Support for the composition absorbing light at 450 to 600nm is found at page 30, line 26.

Claim 181 depends from claim 180 and specifies that the incompatible filler not be a polyester or clay. Support is found in original claim 7, using the same verbiage.

Claim 182 depends from claim 181 and specifies that the incompatible filler be a polyamide. Support for that can be found at original claim 33, and page 23, line 30.

Claims 183 – 185 are to the article wherein the light absorbing composition is the polyester itself. Support for this can be found at page 27, lines 6 – 7.

“...the light absorbent composition can come from the polyester itself.”

Claim 184 depends from claim 180 and specifies that the incompatible filler not be a polyester or clay. Support is found in original claim 7, using the same verbiage.

Claim 185 depends from claim 181 and specifies that the incompatible filler be a polyamide. Support for that can be found at original claim 33, and page 23, line 30.

TABLE – SUPPORT FOR NEW CLAIMS

Claim	SUPPORT
98	Support that at least one of the light absorbing compositions be a red colorant can be found at page 28, line 22 “the complementary color which absorbs light in this same region is red”, page 29, line 8, noting that the red color seems to be the best to cover the haze, and page 32, line 10 and 15, noting Renol Red-4 colorant as being added to the article.
99	Article is an oriented container – see original claim 28 Single continuous portion is a sidewall, see page 12, line 21
100	Article is a bottle – see original claim 29 Single continuous portion is a sidewall, see page 12, line 21
101	See original claims 31 and 32
102	See original claim 33
103	See original claim 34
104	Page 24, line 14– nylon 6 as incompatible filler
105	See original claim 7
106	See original claim 33
107	See original claim 34
108	Page 24, line 14– nylon 6 as incompatible filler
109	Support that at least one of the light absorbing compositions be a yellow colorant can be found at page 29, lines 23 – 29, noting the effectiveness of a yellow colorant to visually mask the haze
110	Article is an oriented container – see original claim 28 Single continuous portion is a sidewall, see page 12, line 21
111	Article is a bottle – see original claim 29 Single continuous portion is a sidewall, see page 12, line 21
112	See original claims 31 and 32
113	See original claim 33
114	See original claim 34
115	Page 24, line 14– nylon 6 as incompatible filler

116	See original claim 7
117	See original claim 33
118	See original claim 34
119	Page 24, line 14– nylon 6 as incompatible filler
120	Support that at least one of the light absorbing compositions be a yellow colorant can be found at page 29, lines 23 – 29, noting the effectiveness of a yellow colorant to visually mask the haze. Support for more than one light absorbing composition can be found at page 6, lines 3-4. (an effective amount of one or more light absorbing compositions)
121	Article is an oriented container – see original claim 28 Single continuous portion is a sidewall, see page 12, line 21
122	Article is a bottle – see original claim 29 Single continuous portion is a sidewall, see page 12, line 21
123	See original claims 31 and 32
124	See original claim 33
125	See original claim 34
126	Page 24, line 14– nylon 6 as incompatible filler
127	See original claim 7
128	See original claim 33
129	See original claim 34
130	Page 24, line 14– nylon 6 as incompatible filler
131	Original Claim 27, $X < 7.5$ at p13, line 4, X is total amount of relative light available for reflectance at p13, line 10-11
132	Article is an oriented container – see original claim 28 Single continuous portion is a sidewall, see page 12, line 21
133	Article is a bottle – see original claim 29 Single continuous portion is a sidewall, see page 12, line 21
134	See original claim 30
135	See original claim 31
136	See original claim 32
137	See original claim 7
138	See original claim 33
139	See original claim 34
140	See original claim 35
141	See original claim 36
142	See original claim 37
143	Page 24, line 14– nylon 6 as incompatible filler
144	Support that at least one of the light absorbing compositions be a red colorant can be found at page 28, line 22 “the complementary color which absorbs light in this same region is red”, page 29, line 8, noting that the red color seems to be the best to cover the haze, and page 32, line 10 and 15, noting Renol Red-4 colorant as being added to the article.
145	Article is an oriented container – see original claim 28 Single continuous portion is a sidewall, see page 12, line 21
146	Article is a bottle – see original claim 29

	Single continuous portion is a sidewall, see page 12, line 21
147	See original claims 31 and 32
148	See original claim 33
149	See original claim 34
150	Page 24, line 14— nylon 6 as incompatible filler
151	See original claim 7
152	See original claim 33
153	See original claim 34
154	Page 24, line 14— nylon 6 as incompatible filler
155	Support that at least one of the light absorbing compositions be a yellow colorant can be found at page 29, lines 23 – 29, noting the effectiveness of a yellow colorant to visually mask the haze
156	Article is an oriented container – see original claim 28 Single continuous portion is a sidewall, see page 12, line 21
157	Article is a bottle – see original claim 29 Single continuous portion is a sidewall, see page 12, line 21
158	See original claims 31 and 32
159	See original claim 33
160	See original claim 34
161	Page 24, line 14— nylon 6 as incompatible filler
162	See original claim 7
163	See original claim 33
164	See original claim 34
165	Page 24, line 14— nylon 6 as incompatible filler
166	Support that at least one of the light absorbing compositions be a yellow colorant can be found at page 29, lines 23 – 29, noting the effectiveness of a yellow colorant to visually mask the haze. Support for more than one light absorbing composition can be found at page 6, lines 3-4. (an effective amount of one or more light absorbing compositions)
167	Article is an oriented container – see original claim 28 Single continuous portion is a sidewall, see page 12, line 21
168	Article is a bottle – see original claim 29 Single continuous portion is a sidewall, see page 12, line 21
169	See original claims 31 and 32
170	See original claim 33
171	See original claim 34
172	Page 24, line 14— nylon 6 as incompatible filler
173	See original claim 7
174	See original claim 33
175	See original claim 34
176	Page 24, line 14— nylon 6 as incompatible filler
177	Support for the composition comprising different light absorbing compositions is found at page 6, lines 3 – 4. Support for the light absorbing compositions being red, blue and yellow are found throughout the specification. (See e.g. page 29, lines 23-29 for yellow, page 28, line 22 for red, and page 40, line 3 for Tersar blue at 0.1%.)

178	Original claim 7
179	original claim 33, and page 23, line 30
180	Support for the composition absorbing light at 450 to 600nm is found at page 30, line 26.
181	Original claim 7
182	original claim 33, and page 23, line 30
183	Support for this can be found at page 27, lines 6 – 7. “...the light absorbent composition can come from the polyester itself.”
184	Original claim 7
185	original claim 33, and page 23, line 30

In addition to the Applicant's February 25, 2006 response, the Objections and Rejections are analyzed below with respect to the new amendments.

Objections

The December 7, 2005 office action objected to claim 17 as being broader than claim 1 because claim 17 had 750 nm as an upper limit and claim 1 had 720 nm. Claim 1 and claim 17 have been canceled overcoming the objection.

Claim 18 was objected to because it refers to a multilayer container and claim 1 is allegedly limited to a single layered article. Applicants have canceled claim 18 rendering that objection moot.

Rejections

Rejection 1, point 4

Claims 27 and 39-41 were rejected for failing to comply with the enablement requirement of 35 U.S.C. 112, first paragraph. Claim 27 has been amended as suggested by the Examiners during the Interview and it is believed that this amendment and the explanation in the Applicant's February 25, 2006 response to the Office Action renders the rejection under 35 U.S.C. 112, first paragraph moot.

More specifically claim 27 has been amended per the Examiners' suggestion so that X is noted as the total amount of relative light available for reflectance. It should be noted that since X is a relative number, it is by definition without units.

Even though Applicant's continue to maintain that this basis of rejection is improper because a prima facie case of lack of enablement was not established, this amendment has been made to expedite examination of the application.

Rejection 2, Point 5.

Claim 1 was rejected for no antecedent basis for the limitation "polyester matrix". Claim 1 has been canceled overcoming this rejection.

Rejection 3, Point 6.

Claims 1-10, 12-18, and 28-38 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (Pub. No. 2002/0001684) in view of Takeda et al. (Pub. No. 2005/0238885)¹, Weaver et al (6,787,589), and Cahill et al. (6,503,463).

Rather than restate the positions in the Applicant's February 25, 2006 response, the Examiner is requested to refer to the response to the office action which details why the invention is not obvious in light of these references. As discussed in the Examiners Interview, it is believed that the common amendment to all the claims (and included in the new claims) that the transparent article be colored overcomes the primary reference to Kim et al. Kim et al teaches that the article be free of color, in particular green and green is one of the working examples in the instant application.

Kim et al specifically teaches that its containers have little color, in particular no green, at paragraphs 38 and 39.

[38] Both the orientation and the large amounts of catalysts used in prior art structures frequently had a deleterious effect on haze, color, and other properties...These deleterious effects have been overcome by controlling the degree of orientation and limiting the amount of catalyst to levels that do not change the refractive characteristics and color, respectively of the blended materials.

[39] Prior art structures that used cobalt as a catalyst tended to appear green in color. In the present invention, this [sic] problem has been solved by controlling the amount of cobalt added to the barrier blend material. The result is an improved structure that is clear and free from the green tint of the prior art structures.

Applicants wish to point out that certain green colors are taught in the instant specification to reduce the visual haze. (page 39, Table III; Fig 9A, Fig 10). There is therefore no motivation to turn to Kim et al when the article is colored. The amendment made calling for the transparent articles now being claimed to be colored accordingly overcomes any basis of the rejection over the teachings of Kim et al.

¹ The office action incorrectly referenced Takeda as Pub. No. 2002/0001684. The proper reference was clarified by a phone conversation from Edwin Sisson to Examiners Dooner on December 12, 2005.

The other arguments in the previous office action were that

1. Takeda et al and Weaver et al are no longer proper references since the date of invention was prior to the filing either one of them. (Refer to 131 Declaration)
2. The rejection does not meet the burdens of a prima facie case because
 - A) the combination of the references do not contain all the elements of the claims,
 - B) the combination destroys the utility of the primary reference and
 - C) there is no motivation to combine the references.
3. Nothing in the references or their combination disclose the elements that the light absorbing compositions or their combination alter the light absorbance of the article so that it
 - A. absorbs light at the wavelengths correlated to the size of the domains
 - B. absorbs an amount of light at those wavelengths proportional to the number of the domains whose size corresponds to the wavelengths.

It is this combination of 1 and 2 which is described by the formula in the independent claims.

The Weaver reference deserves some mention. While Dr. Rollick's review of the ambers of Weaver et al and conclusion that they are not likely to mask the haze was discussed in the Examiners Interview, it was pointed out that the Amber of Weaver could mask the haze under certain domain distributions in the visible spectrum, for example those that had a number of domains between 400 and 520nm as opposed to 600-700nm.² Again, a judgment that the haze is masked or that the criteria of the now claimed formula is met cannot be made without knowing the distribution of the domains between 400 and 700nm (frequency and wavelength) AND the amount of light absorbed, which is related to the amount of light available to reflect.

Absent this information, the combined references cannot disclose the elements that the light absorbing compositions or their combination alter the light absorbance of the article so that it

- A. absorbs light at the wavelengths correlated to the size of the domains
- B. absorbs an amount of light at those wavelengths proportional to the number of the

² It is noted that the distribution of concern is only that in the visible spectrum. As noted in the specification, domains may be present outside the spectrum (<400 and >700nm) as well.

domains whose size corresponds to the wavelengths.

Since these elements are not disclosed, there is no prima facie case of obviousness and the rejection is overcome.

4. The combination of the references using color (Takeda et al and Weaver et al) is improper because they destroy the utility of the extrusion blow container of Kim et al, the primary reference. Therefore, the use of a colorant as taught in the instant specification to reduce the visual haze would destroy the utility of the colorless container of Kim et al.

5. There is a lack of motivation to combine Kim et al with any reference teaching colorants because the extrusion blow container of Kim et al is already haze free and transparent (page 3, paragraph 25, line 6). If the extrusion blow container of Kim et al has no haze, then there can be no motivation to add a colorant absorbing composition to mask a haze which does not exist.

The rejection to claims 28, and 29 to a container or bottle are overcome by the above analysis.

The rejections of claims 36, and 37 are also overcome by the above analysis.

Claim 16 is canceled.

Rejection 7.

Claim 11 to clays as a filler was rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (Pub. No. 2002/0001684) in view of Takeda et al. (Pub. No. 2005/0238885)³, Weaver et al (6,787,589), and Cahill et al. (6,503,463) and further in view of Bagrodia et al. (6,737,464) Since new claim 91 is to the clays, the analysis to rejection 7 in the previous office action is believed to overcome this potential rejection. The arguments are repeated here.

The analysis of Rejection 6 overcomes this rejection as the application of Kim et al is improper and there is no motivation presented to combine the references, Kim et al teaches away from using color, and their combination destroys the utility of the color free container of Kim et al and Takeda et al and Weaver et al are no longer valid references because the

³ The office action incorrectly referenced Takeda as Pub. No. 2002/0001684. The proper reference was clarified by a phone conversation from Edwin Sisson to Examiners Dooner on December 12, 2005.

invention was made prior to their publication dates.

The combination of Kim et al with Bagrodia et al is also improper because the rejection misreads Bagrodia et al. The rejection states that Bagrodia et al teaches that clays can be used to produce lower haze articles and that the use of polymer clay nano-composites are well known in the art achieve low haze transparent articles. Applicants respectfully submit that Bagrodia et al simply does not teach this.

Bagrodia et al does not teach the use of clays to reduce the haze of a container. Bagrodia et al teaches the use of a particular process or clay structure to produce a haze lower than that previously produced from clays. (Column 1, lines 45 – 50)

The presence of voids and haze in structures, particularly oriented structures containing polymer-clay composites make such structures less applicable for aesthetic and functional reasons. It is desirable therefore, to significantly reduce the haze/voids of articles made from polymer clay platelet particle nanocomposites.

Bagrodia et al teaches an acceptable reduced level of haze and voids by reducing the quartz content in the layered clay material. (Column 1, line 61 and line 65). This creates two types of clays, those in the prior art which contain quartz that cause unacceptable voids and haze. This type of clay would benefit from the instant invention. The other type of clay is the type described in Bagrodia et al which does not have quartz but has reduced voids and has acceptable haze as taught by Bagrodia et al.

The combination of Bagrodia et al is also improper because there is no motivation to combine the clays of Bagrodia et al with Kim et al. The rejection claims the motivation is to lower the haze of the container of Kim et al, but as argued earlier, the extrusion blown bottle of Kim et al is already haze free and there is thus no motivation to combine the references on the basis of reducing haze. This is particularly the case when the matrix is poly (m-xylylene adipamide) because there are no domains to cause haze in the extrusion blown bottle of Kim et al. While there may be motivation to lower the haze of the injection-reheat blown bottle, but a combination of nylon with the clay in that bottle would still have measured haze from the nylon domains.

There is also no motivation to combine the extrusion blown bottle of Kim et al that contains the clays of Bagrodia et al with either Takeda et al or Weaver et al because the extrusion blown container of Kim et al is haze free and the clays of Bagrodia et al produce

containers having acceptable haze. There is therefore no motivation to combine the references because the containers are purported to be non-hazy.

The Amendments and responses made are believed to overcome every objection and rejection made in the December 7, 2005 Office Action and the Examiners Interview and a notice of allowance is respectfully requested for all claims.

USPTO credit card form 2038 for 59 additional claims or 2,950 dollars is enclosed.

	Previous	Current	Difference	Cost
Independent	4	2	-2	
Dependent	74	135	+61	
Total	78	137	+59	2,950 Dollars

The Commissioner is also authorized to deduct any charges or credit any overages to deposit account 50-3651.

Respectfully submitted,



Attorney for Applicant(s)

Edwin A. Sisson, Reg. No. 48,723
2845 Woodhaven Drive
Medina, OH 44256
Telephone: (330) 598-1062